## EMGOLD MINING CORPORATION

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# **Emgold Identifies Multiple New Gold and Silver Exploration Targets At Its Golden Arrow Property, NV**

Vancouver, British Columbia, November 23, 2021 – Emgold Mining Corporation (TSX-V: EMR) ("Emgold" or the "Company") is pleased to provide the following exploration update for its advanced stage Golden Arrow Property, NV ("Golden Arrow" or the "Property"). The Company has identified 34 new gold and silver exploration targets for follow up, six of which are deemed high priority and 10 of which are deemed medium priority. Two of the high priority targets are in the vicinity of the known resource areas called Hidden Hill and Gold Coin. Four of the high priority targets are on new claims staked by the Company.

Specifically, during late 2020 and 2021, Emgold completed:

- Staking of 137 additional unpatented mineral claims ("2020 Claim Staking") by Rangefront Mining Services, increasing the property size to 494 unpatented claims and 17 unpatented claims totaling approximately 10,000 acres;
- An airborne magnetic-radiometric survey ("2020/21 Magnetics Survey") contracted to Precision GeoSurveys Inc. over the new claim block area;
- An induced polarization and resistivity ground geophysical survey ("2021 IP-Resistivity Survey") contracted to Zonge International Inc. over the new claim block area;
- A three-dimensional geological model ("2021 3D Geologic Model") using Hexagon HxGN MinePlan 3D Software over the known resource area of the Property; and
- Re-processing and analysis of historic and recent geophysics work over the entire Property, conducted by Condor Consulting Inc. "2021 Condor Geophysics Review").

David Watkinson, President and CEO of Emgold, stated, "The purpose of the work was two-fold: The first goal was to expand our understanding of the current resource areas on the Property with the plan to eventually expand them through additional drilling; and the second goal was to identify new exploration targets on the Property where we hope to generate new resources through additional drilling in the future. Both these goals were met." Note that development of additional resources will be subject to exploration success and other factors.

# **About the Golden Arrow Property**

Golden Arrow is an advanced stage gold and silver property located in the western flank of the Kawich Range, located 40 miles east of Tonopah in Nye County, Nevada. The Property consists of 511 patented and unpatented mineral claims totaling about 10,000 acres in size. The total exploration area has a length of approximately six miles and a width of two miles and contains the majority of the historic Golden Arrow mining district (the "**District**").

Golden Arrow has a comprehensive exploration database including geochemical sampling, geophysics, and over 201,000 feet of reverse circulation and diamond core drilling. To date, two main resource areas have been drilled on the Property focusing on bulk disseminated gold and silver mineralization – the Gold Coin and Hidden Hill deposits. Numerous other exploration targets have been identified for exploration.

Golden Arrow currently hosts a measured and indicated resource of 12.2 million tons at 0.024 opt Au and 0.33 opt Ag containing 296,500 oz Au and 4.0 million oz Ag. It also contains an inferred resource of 3.8 million tons at 0.013 opt Au and 0.33 opt Ag containing 50,400 oz Au and 1.2 million oz Ag. Resources are defined by the CIM Definition Standards on Mineral Resources and Reserves and are described in a National Instrument 43-101 ("NI 43-101") document titled Amended 2018 Updated Technical Report on the Golden Arrow Property, Nye County, Nevada U.S.A., report date September 24, 2018, effective date August 28, 2018 (the "Technical Report"). The Technical Report is available under the Company's corporate filings at <a href="https://www.sedar.com">www.sedar.com</a>. A silver to gold ratio of 55 to 1 and variable cut off grades of 0.01 opt Au for oxide and 0.015 opt Au for unoxidized material were used in the resource calculation.

The Property is situated adjacent on the western side of the Kawich Caldera, a large volcanic caldera that is eight miles in diameter. Golden Arrow is a volcanic-hosted property and has four volcanic centers on or adjacent to the claims. Those volcanoes and vents were part of the Central Nevada volcanic field, which was active between 36 to 18.4 Ma.

Mineral deposit types, considered as potential targets within the District, include:

- High-grade, low-sulfidation quartz-adularia veins, such as those mined in the early 1900's;
- Volcanic-rock hosted, disseminated hot-springs-style gold-silver mineralization, such as that present in the Gold Coin and Hidden Hill resource areas; and
- Caldera-margin low-sulfidation gold mineralization disseminated within porous confined ashflow tuff, such as the gold deposits at Round Mountain Nevada.

Gold deposits of the District have been classified as low-sulfidation epithermal deposits, based upon the style of mineralization observed in the gold-bearing quartz-adularia veins in the historic underground mines. More recent work, however, highlights a second, broader style of hydrothermal alteration and mineralization of hot-springs style.

Figure 1 below shows the 10,000-acre Property, including the 137 additional claims staked to the south. It shows the location of the Hidden Hill and Gold Coin resource areas, with the Gold Coin resource located at Confidence Mountain. The six high priority geophysical targets, which are discussed in more detail below, are located on the map.

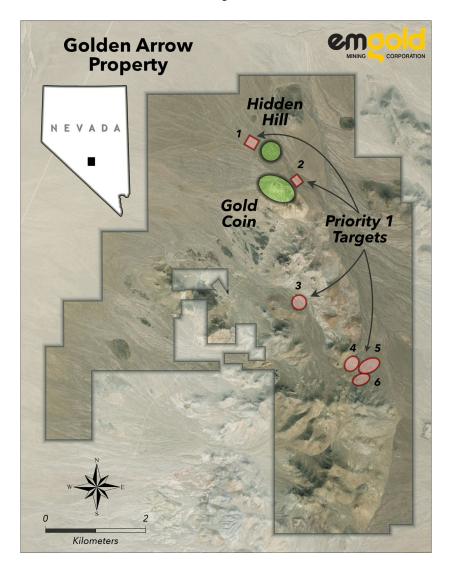


Figure 1
Golden Arrow Property Showing Hidden Hill and Gold Coin Deposits
And the Six New High Priority Exploration Targets

#### 2020 Claim Staking

At Golden Arrow, most historic exploration has been concentrated in the Gold Coin and Hidden Hill gold and silver resource areas, with an effort to develop measured and indicated mineral. An area to the south of Emgold's existing claim block, which has been controlled by other parties for many years, became open for staking. Recognizing the potential of this area for the potential of development of additional resources at Golden Arrow, Emgold retained Rangefront Mining Services to stake an additional 137 unpatented mineral claims, expanding the Golden Arrow claims to 17 patented and 494 unpatented mineral claims totaling about 10,000 acres.

## 2020/21 Magnetics Survey

A helicopter magnetic-radiometric survey was conducted by Precision GeoSurveys Inc. in December 2020 and results received in early 2021. The area covered included the southeast quarter of the main Golden Arrow claim block and the new claim area to the south. Deliverables included magnetics and radiometric maps, a logistics report, and data files.

#### **2021 IP-Resistivity Survey**

A gradient array induced polarization and resistivity survey was completed over the same area by Zonge International Inc. in March 2021. The data received included IP and resistivity maps, a data acquisitions report, and data files.

## 2021 3D Geologic Model

Emgold completed a new 2021 3D geologic model for the main historic exploration areas of the Golden Arrow Property, including the two known resource areas - Gold Coin and Hidden Hill. Three main elements used to update the geologic model were:

- Historic Geologic Mapping: A 1989 District geology map created by Western Gold Exploration and Mining Company "Westgold" was used because it is has the most detailed mapping of the District. Detailed maps of the Confidence Mountain area (which contains the Gold Coin deposit), completed by Kennecott Exploration Inc., Westgold, and Homestake Mining Company, were also used.
- Historic Drill Logs: Historic drill logs were reviewed for details such as lithologic descriptions, degrees of hydrothermal alteration and mineralization, and relationships to adjacent rocks units.
- 3D Modeling: 3D modeling of lithologic units was undertaken in September of 2021 using Hexagon HxGN Mineplan 3D Software. The purpose of the modeling was to get a better understanding of the Golden Arrow rock units and structures and re-interpret the geologic model.

The 3D modeling makes it possible to visualize and examine the lithologies and structures at Golden Arrow from all angles and, when combined with the previous geologic studies, helps determine relative ages of the rock units and other geologic events. At Golden Arrow, the lithologic units are all volcanic origin, including hypabyssal intrusive rocks from the volcanoes and associated volcanic flows and tuffs.

The Property is located in a volcanic field, situated adjacent to the west of the Kawich Caldera. This volcanic field has several types of volcanic centers that decrease in size from volcanoes to volcanic vents and dikes. The relative ages of these volcanic centers, from oldest to youngest are:

- 1. Deadhorse Hill (oldest andesites) pre-mineralization
- 2. Hidden Hill Latite mineralized
- 3. Confidence Mountain Rhyolite Ignimbrite Tuff mineralized
- 4. Deadhorse Hill (youngest andesites) post-mineralization
- 5. The Knolls Andesite and Tuff post-mineralization

The model shows that the rock package of the Gold Coin gold deposit, in general, includes the oldest andesites, volcaniclastic sediments, rhyolite tuffs, minor hydrothermal breccias and hydrothermal clays. The rock package of the Hidden Hill deposit includes the oldest andesites, latite intrusive, volcaniclastic sediments, hydrothermal breccias, minor hydrothermal clays and post-mineral andesites.

Several conclusions came out of generation of the 2021 3D Geologic Model. They include:

- The volcaniclastic unit at Hidden Hill might continue to the east, as drill spacing in that part of the deposit is wide. This is important since this is the main mineralized unit of the Hidden Hill deposit.
- The latite of Hidden Hill intrusive unit is the main mineralizer for the Hidden Hill deposit. The importance of this was not previously recognized. Another latite intrusive unit, shown on the Westgold geology map, exists on the southeast end of the Emgold claim block. Named Latite South in this study, it has received little prior exploration attention.

- The felsic unit found in one drillhole below the oldest andesite west of Hidden Hill suggests an exploration target might exist at a depth of 1,000 feet because the felsic rocks have low grade anomalous gold-silver values. There is no other drilling in the vicinity of this hole.
- At the Gold Coin deposit hydrothermal fluids were injected into a segment of the Walker Lane Fault Zone over a width of 1,000 feet, resulting in alteration and mineralization. This fault zone appears to be the main mineralizing unit of the Gold Coin resource, having particularly intruded and mineralized the volcaniclastics. Additionally, the close association of the Confidence Mountain Rhyolite to the Walker Lane Fault segment suggests that the Confidence Mountain Rhyolite could also have been a penecontemporaneous mineralizing conduit.
- Exploration targets from the 3D modeling that have not been adequately drill tested include anomalous felsic rocks west of Hidden Hill plus a possible extension of the volcaniclastic rocks to the east of Hidden Hill. Another target is a latite intrusive unit found on the south edge of the main Golden Arrow claim block.

The 2021 3D Geologic Model was provided to Condor Consulting Inc. to assist in their geophysics review.

# **2021 Condor Geophysics Review**

In late May of 2021, Emgold retained Condor Consulting Inc. to begin an assessment of historic and new geophysics data available for the Golden Arrow Property. The first recorded geophysical surveys on the Property were recorded in 1989 and the most recent data was collected in 2021. While most of the surveys are deemed to be of reasonable quality, very little actual interpretation or systematic modeling of the data has been carried out.

The data Condor utilized in their review and analysis included:

- 1. Aerodat EM, magnetic, and radiometrics survey (1992)
- 2. Kennecott Exploration Inc. ground magnetics survey (1996)
- 3. Kennecott Exploration Inc. ground gravity survey (1996)
- 4. Quantec Orion DC resistivity, IP, and MT survey (2011)
- 5. Precision GeoSurveys Inc. magnetic and radiometrics survey (2020/21)
- 6. Zonge International Inc. gradient DC resistivity and IP survey (2021)
- 7. Historic geologic mapping.
- 8. Historic drill hole data provided by Emgold.
- 9. 3D model and data provided by Emgold (2021).
- 10. Soil geochemistry data from the new claim area provided by Emgold (2021)

Using these datasets, Condor conducted a comprehensive geophysical and geologic interpretation of the Property. This included re-interpreting the geophysical data, a petrophysics analysis, Geointerp evaluation, and delineation of new of exploration targets. Condor reviewed and re-interpreted the usable geophysical survey data and obtained magnetic susceptibility readings from rock outcrops on the Property and drill core. Geointerp, an analysis using magnetic data and geologic elements, was applied to interpret structures.

Using the results of each type of analysis, exploration zone targeting was conducted. The priorities of the exploration target zones were determined by the number of favorable geophysical features from Condor's comprehensive analysis of existing surveys, plus geological and geochemical aspects from work done on the Property. High chargeability, high resistivity, and high gravity anomalies were heavily weighted factors.

Condor delineated 34 prospective geophysics targets from their analysis. Six targets were deemed high priority and 10 targets were deemed medium priority by ranking of potential. Two of the high priority targets are in the vicinity of the known resource areas called Hidden Hill and Gold Coin. Four of the high

priority targets are on new claims staked by the Company. The six high priority targets are shown in Figure 2, superimposed on magnetics.

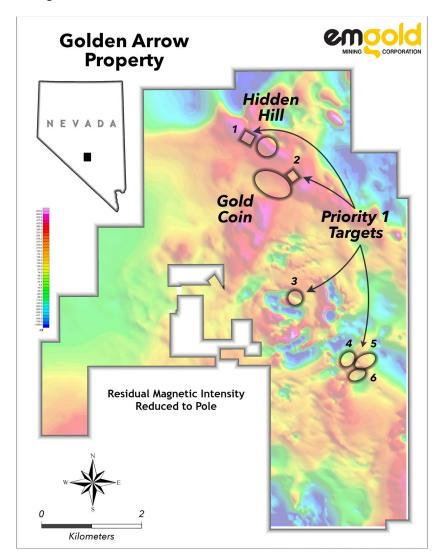


Figure 2
Golden Arrow Property Showing Hidden Hill and Gold Coin Deposits
And Six New High Priority Exploration Targets Superimposed on Magnetics

#### **Description of New High Priority Geophysics Exploration Targets:**

<u>Target 1</u>: This geophysical target is at the same location as a target delineated by 3D modeling where felsic tuff is found underlying the oldest andesites west of the Hidden Hill deposit. Condor describes this area as being along the edge of a narrow MT zone, a high resistivity arc, and a high chargeability unit, with evidence that latite will be found at depth. It is an area of very sparse drilling.

<u>Target 2</u>: The 3D model indicates that the volcaniclastic sediments of Hidden Hill might be open to the east, based on limited drilling with alteration but limited depth extent. This geophysical target is located 400 feet east of the known extent of the volcaniclastic rocks of Hidden Hill, and is also along the same narrow MT zone, and a coincident strong IP anomaly. According to Condor's study, this might suggest the presence of volcaniclastic sediments.

<u>Target 3</u>: In the center of the Golden Arrow claim block, Westgold geologic mapping shows this area being at the contacts of several felsic tuff units and at the intersections of several faults. The geophysical target is in a new exploration area and described as being in a magnetic flat zone surrounded by complex magnetics, corresponding IP and resistivity high, and GeoInterp prospectivity.

<u>Target 4</u>: In the southeast corner of the main Golden Arrow claim block, at the contact of two tuff units, this geophysical target is in a resistivity low directly on the edge of an extensive resistivity high, with some elevated IP and depleted potassium. Also deemed prospective by GeoInterp, this target is near historic mine workings and geochemical anomalies. Note that targets 4, 5 and 6 are very close together.

<u>Target 5</u>: Essentially adjacent to the east of Target 4, this target has elevated IP response and depleted potassium. Historic geochemical results were encouraging in this area, and GeoInterp sited it as being prospective. Most of this target is under pediment alluvium.

<u>Target 6</u>: Adjacent to Targets 4 and 5, this target has elevated IP associated with historic mine workings and a geochemical anomaly. It is on the edge of low magnetic zone and considered prospective by GeoInterp.

## Re-interpretation of 2011 Quantec Orion Survey

One part of the analysis by Condor was a re-interpretation of the 2011 Quantec Orion Survey. Condor analyzed 3D DC Resistivity, 3D MT Inversion, and 3D IP at depth slices of 1,750 m, 1,650 m, 1,550 m, 1,450 m, 1,350 m, and 1,250 m asl. The results showed a large circular feature, over 1.0 km in diameter exists to a depth of several hundred meters (and likely continues much deeper). It appears to have a direct association with Hidden Hill and Gold Coin, which both occur on the edge of the circular feature. The large target extends into areas that have little or no previous drilling. A 3D Resistivity Inversion plot shows this feature in Figure 3 below. Note the Hidden Hill and Gold Coin resources are outlined in red and show up on the edge of this circular feature.

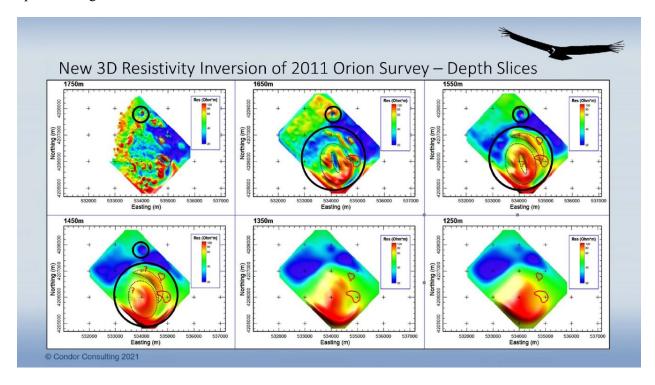


Figure 3
New 3D Resistivity Inversion of 2011 Quantec Orion Survey – Depth Slices

David Watkinson stated, "The work completed by Condor and Emgold shows that there is potential to expand resources in the vicinity of the known resources areas of Hidden Hill and Gold Coin. Emgold has an existing Plan of Operations and Environmental Assessment completed in this area to allow drilling to proceed, subject to financing. In addition, the 2021 geophysical surveys, along with Condor's evaluations, has identified multiple new exploration targets on the new claim area that Emgold can now follow up on with geological and structural mapping, soil sampling, and ultimately drilling. Based on the size of the targets, Emgold management believes that there is potential to expand the Golden Arrow resources with more drilling, targeting 500,000 to 1.0 million gold equivalent ounces, subject to exploration success."

#### **Qualified Person**

Robert Pease, C.P.G., a qualified person under the NI 43-101 instrument, has reviewed and approved the content of this press release.

## **About Emgold**

Emgold is a gold and base metal exploration company focused on Nevada and Quebec. The Company's strategy is to look for quality acquisitions, add value to these assets through exploration, and monetize them through sale, joint ventures, option, royalty, and other transactions to create value for our shareholders (acquisition and divestiture (A&D) business model).

In Nevada, Emgold's Golden Arrow Property, the core asset of the Company, is an advanced stage gold and silver property with a well-defined measured and indicated resource. New York Canyon is a base metal property subject to an Earn-in with Option to Joint Venture Agreement with Kennecott Exploration, a subsidiary of Rio Tinto Plc (NYSE:RIO). The Mindora Property is a gold, silver, and base metal property located 12 miles from New York Canyon. Buckskin Rawhide East is a gold and silver property leased to Rawhide Mining LLC, operators of the adjacent Rawhide Mine.

In Quebec, the Casa South Property, is an early-stage gold property adjacent to Hecla Mining Corporation's (NYSE:HL) operating Casa Berardi Mine. The East-West Property is a gold property adjacent to and on strike with Wesdome Gold Mine Ltd.'s (TSX:WDO) Kiena Complex and O3 Mining Corporation's (TSX:OIII) Malarctic Property (Marban Project). The Trecesson Property is located 50 km north of Val d'Or Mining Camp. Emgold also has a 1% NSR in the Troilus North Property, part of the Troilus Mine Property being explored by Troilus Gold Corporation (TSX:TLG).

Note that the location of Emgold's properties adjacent to producing or past producing mines does not guarantee exploration success at Emgold's properties or that mineral resources or reserves will be delineated. For more information on the Company, investors should review the Company's website at <a href="https://www.emgold.com">www.emgold.com</a> or view the Company's filings available at <a href="https://www.sedar.com">www.sedar.com</a>.

On behalf of the Board of Directors

David G. Watkinson, P.Eng.

President & CEO

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Certain statements made and information contained herein may constitute "forward looking information" and "forward looking statements" within the meaning of applicable Canadian and United States securities legislation. These statements and information are based on facts currently available to the Company and there is no assurance that actual results will meet management's expectations. Forward-looking statements and information may be identified by such terms as "anticipates", "believes", "targets", "estimates", "plans", "expects", "may", "will", "could" or "would". Forward-looking statements and information contained herein are based on certain factors and assumptions regarding, among other things, the estimation of mineral resources and reserves, the realization of resource and reserve estimates, metal prices, taxation, the estimation, timing and amount of future exploration and development, capital and operating costs, the availability of financing, the receipt of regulatory approvals, environmental risks, title disputes and other matters. While the Company considers its assumptions to be reasonable as of the date hereof, forward-looking statements and information are not guarantees of future performance and readers should not place undue importance on such statements as actual events and results may differ materially from those described herein. The Company does not undertake to update any forward-looking statements or information except as may be required by applicable securities laws. The Company's Canadian public disclosure filings may be accessed via <a href="https://www.sedar.com">www.sedar.com</a> and readers are urged to review these materials, including any technical reports filed with respect to the Company's mineral properties.